Quiz 1 Memo

Date: 19-03-21

Question 1 Answer [2 Marks]

The primary difference of UML and ERD is that UML is a _____ that represents a system visually and ERD is an entity relationship diagram that represents the entities and their _____ in a database

Answer: modeling language, relationships

Question 2 Answer [2 Marks]

Data _____ is the reduction of a particular body of data to a simplified representation of the whole.

Answer: abstraction

Question 3 Answer [2 Marks]

From a technology standpoint the _____ has many opportunities to learn about new and interesting technologies as they are adopted by the organization

Answer: DBA

Question 4 Answer [2 Marks]

_____ Represents the database as seen by the DBMS, mapping conceptual model to the DBMS.

- A. Conceptual Model
- B. Physical Model
- C. The Internal Model
- D. None of the above

Question 5 Answer [2 Marks]

_____ reassures that changes in the physical model do not affect internal model.

- A. Data independence
- B. Conceptual Model
- C. Physical independence
- D. Data integrity

Question 6 Answer [2 Marks]

Users can specify some simple _____ on the data, and the DBMS will enforce these constraints.

Answer: integrity constraints

Question 7 Answer [2 Marks]

The DBMS accepts _____ generated from a variety of user interfaces, produces query evaluation plans, executes these plans against the database, and returns the answers.

Answer: SQL commands

Question 8 Answer [2 Marks]

Every _____ has an internal schema which describes the physical storage structure of the database.

Answer: database

Question 9 Answer [2 Marks]

The goal of _____ is to provide and coordinate execution of interleaved transactions so that the view from the database's perspective is the same.

- A. Concurrency Control
- B. DBMS
- C. Data integrity
- D. Database

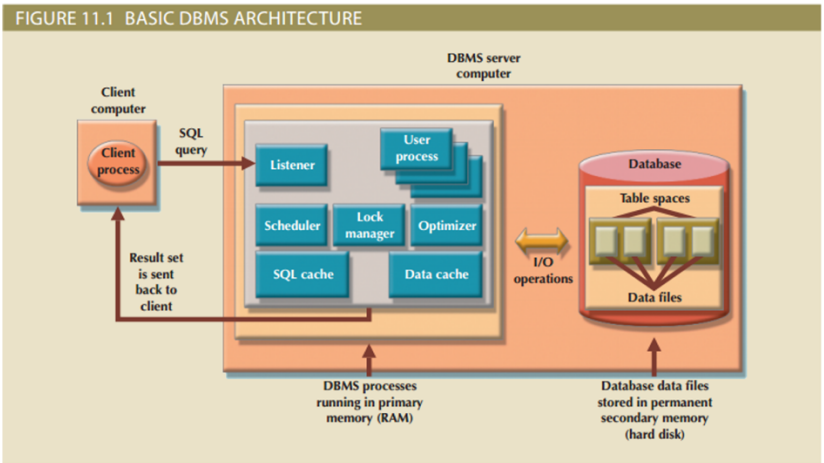
Question 10 Answer [2 Marks]

_____ concurrency control is based on the idea that transactions are expected to conflict with each other, so we need to design a system to avoid the problems before they start.

Answer: Pessimistic

Question 11 Answer [2 Marks]

Using your own words and referring to the diagram kindly define what a DBMS architecture is and the roles it plays in an organization. Provide a real-life example as well.



The DBMS design depends upon its architecture. The basic client/server architecture is used to deal with a large number of PCs, web servers, database servers and other components that are connected with networks. The client/server architecture consists of many PCs and a workstation which are connected via the network. DBMS architecture depends upon how users are connected to the database to get their request done. DBMS architecture can be single-tier or multi-tier architecture. A simple real-life example of an active DBMS architecture in use is how well it manages or handles concurrent transactions in Banking applications or Flight Booking applications and etc. Where concurrent transactions can take place at the same time and the DBMS has to respond in real time.

Question 12 Answer [2 Marks]

A file may consist of blocks of equal size, ranging from 16 KB to 1 MB striped across several disks?

- True
- False

Question 13 Answer [2 Marks]

If you lock the table at the row level, then other users can get to the rest of the table and you will have the worst possible shared access.

- True
- False

Question 14 Answer [2 Marks]

_____is a unique identifier created by the DBMS that indicates the relative starting time of a transaction.

Answer: Timestamping

Question 15 Answer [2 Marks]

Majority of performance-tuning activities focus on minimizing disk reading operations.

- True
- False